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## THE SO-CALLED ATHLETE'S RING

IN these days when machinery accomplishes so much for us, we hardly realize to what extent important operations in antiquity were dependent upon hand or foot labor. My present problem is concerned wholly with the employment of the latter.

We may first refer to the fuller (*κναφεύς*, *fullo*), who fulfilled largely the functions of the modern washerwoman or, if you will, public laundry. One of his jobs was to stamp up and down in a vessel, vat, or mortar (*pila fullonica*) which contained the clothes that were being cleansed. Seneca in one of his letters (II, 3 (15), 4), enumerating various physical exercises, speaks of high and broad jumping and, thirdly, of the kind that the Salii did. This in somewhat slighting language he would also call the *saltus fullonius*. He probably had in mind the *βίβασις* which gave Lampito in Aristophanes' *Lysistrata* (80 ff.) her fine complexion and muscle, and in which another Spartan lady of whom we hear in Pollux (IV, 102) managed to kick herself a thousand times.<sup>1</sup>

Naturally a fuller would have great difficulty in performing his *saltus* standing free, and so we are not surprised to find in our ancient representations of treading the clothes that he might rest his arms on the partitions which separated, at about the height of his armpits, the niche in which he worked from those adjoining, or according to another arrangement, grasp handrails erected on the sides of the vat to about the level of his waist.<sup>2</sup> If two fullers ever worked in the same vat, we may assume that

<sup>1</sup> On *sallantes Lacaenae* see Mercurialis, *De Arte Gymn.* p. 161; Krause, *Die Gymn. und Agon.* I, p. 398, note 11.

<sup>2</sup> For the former method of maintaining equilibrium see the picture from a *fullonica* at Pompeii reproduced in Blümner, *Technologie und Terminologie der Gewerbe und Künste*, I<sup>2</sup>, p. 186, fig. 70; Schreiber, *Atlas of Class. Antiq.* pl. LXXV, 7; Baumeister, *Denkm.* p. 2084, fig. 2327; Ménard, *La Vie Privée des Anciens*, III, p. 125, fig. 151. For the latter, Blümner, *op. cit.* p. 189, fig. 75, a relief in the Museum of Sens which is also reproduced in Schreiber, *op. cit.* pl. LXXV, 12; Baumeister, *op. cit.* p. 2084, fig. 2330 and Ménard, *op. cit.* III, p. 121, fig. 147.

they balanced themselves in the same way that the grape treaders did to whom we are presently coming.

Passing now to another occupation, the manufacture of olive oil, we find a similar resort to foot power; for contrary to the impression that certain<sup>1</sup> among our manuals give us, there can be no doubt that the extraction of the oil was not done by machinery alone. The crucial passage is in Columella, XII, 52, 6: *oleo autem conficiendo molae utiliores sunt quam canalis et solea. molae quam facillimam patiuntur administrationem; quoniam pro magnitudine baccarum vel submitti vel etiam elevari possunt ne nucleus, qui saporem olei vitiat, confringatur. rursus trapetum plus operis faciliusque quam solea et canalis efficit.* Blümner,<sup>2</sup> Schneider,<sup>3</sup> Gesner<sup>4</sup> and others<sup>5</sup> who have dealt with this fail to recognize that *solea* and *canalis* do not refer to any machine at all, but, on the contrary, to the use of the human foot, wearing a sandal, and of receptacles for the olives and the oil that is pressed from them, a method that must have minimized the danger of vitiating the *sapor olei* by any crushing of the *nucleus*. This interpretation occurred to me independently but I have since found that others have advanced it as a probability.<sup>6</sup> It would, indeed, have been surprising, if the poorer class of olive growers could afford a sufficiency of machinery for all the work. As a matter of fact, I have now found several passages<sup>7</sup> in Greek lexicographers that ought to put the question beyond the possibility of a doubt. These state that Boeotians trampled the olives wearing sandals consisting of a wooden sole, ξύλινα ὑποδήματα, the Italian *zoccoli*. They are variously called in our ancient authorities κρουπέζαι,<sup>8</sup> κρουπέζια,<sup>9</sup> κρούπανα,<sup>10</sup> κρούπαλα<sup>11</sup> or κρούπετα.<sup>12</sup> This foot gear

<sup>1</sup> Compare e.g. *Cat. of the Brit. Mus. Exhib.* p. 211.

<sup>2</sup> *Die Römische Privataltertümer*, p. 573; *Techn. u. Term.* I<sup>2</sup>, p. 343: "was das aber für eine Maschine war, ist nirgends angedeutet und aus der Benennung nicht zu entnehmen."

<sup>3</sup> *Script. rei rusticae*, II, pt. ii, p. 660, note.

<sup>4</sup> *Lexicon Rusticum* s.v. 'Solea': *quale hoc instrumentum fuerit, non habeo dicere.*

<sup>5</sup> Forcellini s.v. 'Solea': *sed res adhuc obscura manet*; Smith, *Dict. of Ant.* s.v. 'Solea': "a kind of oil-press."

<sup>6</sup> Daremberg et Saglio, s.v. 'Olea'; Smith, *op. cit.* s.v. 'Trapetum.'

<sup>7</sup> Hesych. s.v. κρουπέζουμενος; Photius s.v. κρουπέζαι.

<sup>8</sup> Pollux VII, 87; Phot. s.v.; Eustath. 867, 29. See especially Meineke, *Fragm. Com. Gr.* I, p. 336.

<sup>9</sup> Pollux X, 153; Hesych. s.v.

<sup>10</sup> Hesych. s.v.

<sup>11</sup> Soph. *Fragm.* 43; Hesych. s.v. κρουπαλίας.

<sup>12</sup> Hesych. s.v.

was, indeed, in such common use in rural Boeotia that the comic writer Cratinus<sup>1</sup> called the inhabitants a κρουπεξοφόρον γένος ἀνδρῶν. Sandals made of wood are also mentioned in Latin literature<sup>2</sup> and seem to figure along with any clogs or sabots cut out of the same material under the general name *sculpon:ae*<sup>3</sup> as the typical *rustica calceamenta*.<sup>4</sup> If foot covering is still worn occasionally by those who tread the grapes,<sup>5</sup> how essential must it have been to those who had to crush the harder fruit of the olive!

But there is monumental evidence also that the ancients sometimes crushed the olives by trampling, namely the fragment of a sarcophagus relief in the Palazzo Rondinini which is described by Blümner in the *Archäologische Zeitung* and there pictured.<sup>6</sup> A winged genius or Eros stands deep in the olives holding with his left hand something that has baffled everybody to identify. Blümner (p. 54) says "vermuthlich einen Stab," while Schreiber<sup>7</sup> was of the opinion that it was something for raising the heavy beam of the oil press, *prelum*, which we see in the background; but in that case the operator would hardly have had his back to it or been grasping the rope (or whatever it is) with but one hand. In his *Technologie und Terminologie* (I<sup>2</sup>, p. 351) Blümner suggests that it may be a "Strick" but effectually disposes of any idea that it was attached to the press as a means of drawing down the heavy beam. I have found, however, among Egyptian pictures of the manufacture of wine two which, I judge, will definitely settle the matter. In one<sup>8</sup> seven men are seen treading the grapes in a vat, each grasping with one hand his own separate rope suspended from above, while in the other<sup>9</sup> there are

<sup>1</sup> Meineke, *op. cit.* II, pt. 1, p. 225, CLIII. Pollux VII, 87 is not quite right in his interpretation.

<sup>2</sup> Petron. 95, 8: *soleae lignae*.

<sup>3</sup> Cato *Agr.* 59 and 135; Plaut. *Cas.* 495; Naevius in Fulg. 562, 23; Non. 164, 20; *C.G.L.* (Goetz) V, 187, 13 and 617, 21.

<sup>4</sup> Isid. XIX, 34, 13.

<sup>5</sup> Gardner, *The Brewer, Distiller and Wine Manufacturer*, p. 216.

<sup>6</sup> *Arch. Ztg.* XXXV, 1877, pp. 53-54 and pl. VII, 1. Daremberg et Saglio, *s.v.* 'Olea' (IV, p. 167 with fig. 5391) explain: "un petit génie les foule aux pieds pour mieux les tasser," which would seem to be a quite superfluous labor. Our other interpreters all recognize the process as one of crushing the fruit. See too Baumeister, *op. cit.* p. 1047 and fig. 1262.

<sup>7</sup> *Op. cit.* pl. LXV, 13.

<sup>8</sup> Wilkinson, *The Manners and Customs of the Ancient Egyptians*, I<sup>2</sup>, p. 385, fig. 161. See also Ménard, *op. cit.* III, p. 67, fig. 70.

<sup>9</sup> Ménard, *op. cit.* III, fig. 69.

four and the cords which they grasp are fastened to a pole which extends above their heads between two trees.

When we turn to our study of the making of wine among the Greeks and Romans we have the help of ampler illustration in surviving monuments. When several persons are treading the grapes in the same vat, the artist represents them sometimes as supporting themselves by staves with a forked end.<sup>1</sup> These may have served as vine props or may possibly have been the upright pieces of the *patibula* that Cato<sup>2</sup> mentions among the instruments for viniculture. More frequently, however, the treaders clasp hands,<sup>3</sup> or hold on to each other's shoulders<sup>4</sup> or bodies,<sup>5</sup> or intertwine their arms, or, if there are only two, they may grip a ring formed of rope or one made apparently of osiers or vine branches.<sup>6</sup> It is quite exceptional to find a person at work with no support at all.<sup>7</sup> Those who balance themselves with the ring especially interest us, since they at last give us, I think, the correct explanation of a word which occurs not infrequently in Cato's *De Agricultura* and, best of all, permit us to identify certain bronze implements that have long mystified the archaeologist.

<sup>1</sup> Reinach, *Répertoire de Reliefs Grecs et Romains*, III, pp. 294, 1; 427, 4.

<sup>2</sup> *Agr.* 26 and 68. The theory that the *patibula* were step ladders (Gesner, *Lex. Rust. s.v.*) is untenable; see Pliny *N. H.* XVIII, 212 and Dar. et Sag. *s.v.* 'Crux.'

<sup>3</sup> Reinach, *op. cit.* III, p. 150, 3; p. 283, 2-4; p. 427, 4; Millin, *Galerie Myth.* I, pl. LVI, 269.

<sup>4</sup> Reinach, *op. cit.* III, p. 293, 3; p. 294, 1; p. 370, 1; Zahn, *Die Schönsten Ornamenten und Merkwürdigsten Gemälde aus Pompeji*, 3 Folge, Taf. XIII; Espérandieu, *Recueil Général des Bas Reliefs de la Gaule Romaine*, I, p. 400, fig. 637 = Reinach, *op. cit.* II, p. 231, 4.

<sup>5</sup> Reinach, *op. cit.* III, 370, 1 = G. B. Piranesi, *Opere Scelte, Vasi e Candela-bri*, pls. XXIV, XXV, B.

<sup>6</sup> Walters, *Cat. of the Terracottas in the Brit. Mus.* pp. 389-390, D 543-D 549.

<sup>7</sup> In the case of the single figure on the well known vase which is reproduced e.g. in Mau-Kelsey, *Pompeii*<sup>2</sup>, p. 416, fig. 239, Overbeck-Mau, *Pompeji*, p. 626, fig. 320 and Reinach, *op. cit.* III, 73, fig. 1, Ruesch, *Guida Illustr. del Mus. Naz. di Napoli*, p. 397, No. 1842, says that the Eros clasps a thyrsus, but it may, after all, be a support such as we have noted. Finati in the *Real Mus. Borbonico*, XV, Tav. LV-LVI, p. 2, elucidates as follows: "E merita di esser rimarcato il Genietto che piglia le uve starsene vivacemente con un lungo pistello, a guisa di vincastro, nell' attitudine di pestar le uve con misura di tempo, sia che esso la indichi a due suonatori, sia che di costoro segna la cadenza, per rendere men faticoso e più regolare il suo lavoro." In other scenes the operators are represented with shorter sticks or the like.

Perhaps the best known representation<sup>1</sup> of this sort is that which Welcker discusses in his *Alte Denkmäler*, II, pp. 113–121, as an “Idealische Vorstellung des Kelterns.” He rightly decides that the two satyrs in the vat are not grasping the ring in some exercise or game of pulling and hauling each other over round pebbles to the music of the pipes<sup>2</sup> but rather in treading fruit such as the fourth satyr in the scene is bringing in a basket. This fruit looks more like olives<sup>3</sup> or even like apples than like grapes, but must be identified as the last because of other representations of the same type which picture the clusters accurately. The other monuments,<sup>4</sup> however, invalidate Welcker’s further theory<sup>5</sup> that the two satyrs are swinging each other around in a sort of dance with the help of the ring. On the contrary, the treaders are merely jumping backwards and forward in a sort of exaggerated *saltus fullonius*, shall I say, an alternating movement of their legs which would certainly better accord with pipe playing when its rhythm was emphasized by the beat of a foot-clapper, *scabellum* or *scabillum*, than any swinging over slippery fruit could do.

Now we have, I think, in literature some references to the implement with which pairs of grape or olive treaders would maintain their equilibrium in the crushed fruit, a ring or circle of some sort, such as I have been told is still used in Italy for the purpose. The Romans called them *orbes*, a term often used, as any Latin lexicon will show, for rings, hoops, or other objects of that shape, as well as for discs. While rope or withes might constitute a makeshift circle, permanent rings would be cast in bronze and be kept between seasons along with other apparatus of the grape and olive pressing in the store-room.<sup>6</sup> So Cato lists among the implements necessary for the equipment of the owner of an *oletum orbes aheneos* II.<sup>7</sup> He cannot here be referring to any

<sup>1</sup> Readily accessible in Baumeister, *op. cit.* III, p. 1564, fig. 1627, taken from Zoega, *Bassiril.* II, 87. Cf. Reinach, *op. cit.* III, p. 144, 2.

<sup>2</sup> As, for instance, Becq de Fouquières, *Les Jeux des Anc.*, p. 96, interpreted it.

<sup>3</sup> Recalling, therefore, the olive pressing scene already discussed. Grapes are elsewhere represented as stemless and of many times their natural size. Compare Reinach, *op. cit.* III, p. 283, fig. 2–4.

<sup>4</sup> For instance, one of the Campana plaques, Reinach, *op. cit.* II, p. 276.

<sup>5</sup> *Op. cit.* p. 113. In Nicander, *Alex.* 30 ff. the whirling, drunken dance of the Sileni comes after they have trodden out the grape juice, and, therefore, the passage is no support to Welcker’s interpretation.

<sup>6</sup> Cato, *Agr.* 68.

<sup>7</sup> Cato, *Agr.* 10, 4.

part of the mills or press,<sup>1</sup> nor to an *operculum aheni*<sup>2</sup>; for these are mentioned elsewhere in the chapter, and the same statement applies to 11, 2, where among the implements provided for the various processes of viniculture and winemaking, we again have mention of the *orbem aheneum*. So, too, in 13, 1 among the furnishings of the pressroom, *torcularium*, this same ring of bronze occurs.<sup>3</sup> In all these places the commentators have been unable to determine the meaning of the term.

Now as to surviving specimens, may I venture the belief that we have them in the so-called "athlete's rings,"<sup>4</sup> the identification and use of which have always been regarded as quite problematical, although they are sufficiently numerous? We have information, to be sure, about various games that involve pulling and hauling in which theoretically such an implement as the ring might have been put to use in cases where the contestants in the two opposing parties struggled by pairs, but actually they seem to have used only a length of rope, if they did not clasp each other by the hands or the like.<sup>5</sup>

We learn that these rings have come to light in greatest number in Picenum,<sup>6</sup> which I note was a great olive producing country; but Etruria also has yielded not a few.<sup>7</sup> The half dozen double cone-shaped, knot-like proturbances that are characteristic of these bronze rings are sometimes spaced equally from one an-

<sup>1</sup> Compare the stone grinder of 3, 5 and the wooden pressboard, *orbis olearius* of 18, 19.

<sup>2</sup> Cato, *Agr.* 10.

<sup>3</sup> The corruption in the mss. makes 14, 2 unavailable in our discussion.

<sup>4</sup> *Cat. of the Brit. Mus. Bronzes*, p. 339, No. 2692, with a diameter of five inches, has four knots, the following three numbers each six knots and a diameter respectively of  $6\frac{1}{4}$ ,  $8\frac{1}{8}$ , and  $8\frac{1}{4}$  inches; Schumacher, *Beschreib. der Antiken Bronzen zu Karlsruhe*, p. 167; Montelius, *La civilisation Primitive en Italie*, Ser. II, vol. I, p. 765, pl. 161, fig. 4; *Not. Scav.* 1901, fig. 6 c; p. 234: "Sull'uso loro si è tuttora incerti: alcuni li credono oggetti di ginnastica . . . altri crotali od oggetti musicali . . . altri fermagli di fascia." When struck they yield a hopelessly unmusical sound, a thud.

<sup>5</sup> To such games we have reference in the expressions *παίζειν ἐλκυστινδα*, *διελκυστινδα* and *διὰ γραμμῆς*. That called *σκαπέρδα* is different. See Grasberger, *Erziehung und Unterricht*, I, pp. 99-100; Daremberg et Saglio, *s.v.* 'Gymnastica', p. 1700\*; Smith, *op. cit.* *s.v.* 'Gymnasium,' I, p. 929\*; F. D. Allen, *Harvard Stud.* IV, 1893, pp. 151 ff. on *πεῖραρ ἐλέσθαι* and *manus consortio*.

<sup>6</sup> *Not. Scav.* 1901, p. 233: "Anelloni di bronzo, caratteristici del Piceno inferiore."

<sup>7</sup> Schumacher, *op. cit.* p. 167, No. 873 (1124-1125).

other, but also in some specimens at varying distances, so as better to accommodate, it would seem, the gripping of the hand.<sup>1</sup>

Finally, I come to what has been my chief inspiration to write this article, a splendid specimen in the Museum of the University of Pennsylvania which has the usual six projections unequally spaced (Fig. 1).

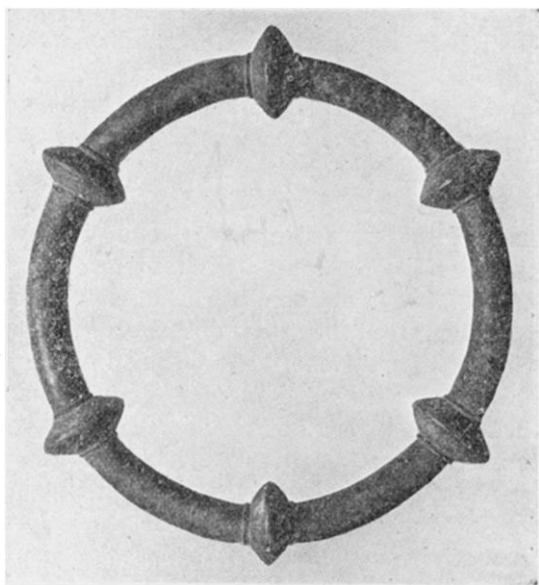


FIGURE 1.—“ATHLETE'S RING”: UNIVERSITY MUSEUM, PHILADELPHIA.

This has long rested in the same case with a piece of a vase which Dr. Stephen B. Luce, the Curator, has kindly



FIGURE 2.—FRAGMENT OF ATTIC VASE: UNIVERSITY MUSEUM, PHILADELPHIA.

identified as a fragment of an Attic black-figured hydria that was made about 525 B.C. (Fig. 2). The scene depicted on this would seem to be a procession to the music of a cithara played by a

<sup>1</sup> Schumacher, *l.c.* Knots, however, also had value as amulets; compare *e.g.* Heckenbach, *De Sacris Vinculis*, p. 110.

man. At the side of a second male figure we see a woman who holds in front of her in one hand a ring which strongly resembles these that we have been describing, except that it is somewhat larger and presents perhaps ten<sup>1</sup> knobs in its circumference. If the object is the same, we should naturally conjecture that the group is concerned with some festival of the Wine-god and perhaps carrying the bronze ring as the most suitable votive offering<sup>2</sup> to make at his shrine, the symbol of the operation which has called forth in all ages and among all peoples the most merry-making, music, and song. So we are told, for instance, in Judges IX, 27<sup>3</sup>: "And they went out into the fields and gathered their vineyards, and trode the grapes and made merry, and went into the house of their god and did eat and drink, and cursed Abimelech"; and so far as our classical peoples are concerned, we have ample information, as everybody knows, about their playing on the cithara and the lyre, their dancing and singing and jesting, not only in their literatures from Homer<sup>4</sup> downwards but in surviving monuments. In these we have noted satyrs providing the music for a rhythmic *saltus* on the pipes with the accompaniment of the *scabellum*<sup>5</sup> or some performer on the pan-pipes.<sup>6</sup>

<sup>1</sup> In this particular it recalls the ring around the archaic bronze head which Brunn describes in the *Archäologische Zeitung*, XXXIV, 1876, p. 24, pls. III, IV, but the pictures show that it is different.

<sup>2</sup> The *ληνοβάτης* or *calcator* would show his gratitude for a successful vintage (or olive pressing) by dedicating either an important implement or the model of one, as e.g. in Longus, *Daphnis and Chloe*, I, 4, the shepherds had dedicated their milkpails as well as their musical instruments (cf. IV, 32), and in Philostratus, *Apoll. Tyan.* II, 8, models of scythes, baskets, winepresses, etc., are mentioned as the offerings in a shrine of Dionysus. For similar practices among the Romans see De Marchi, *Il Culto Privato di Roma Antica*, I, pp. 296; 297, note 6; 301.

<sup>3</sup> Compare Jeremiah XLVIII, 33.

<sup>4</sup> Homer *Il.* XVIII, 570. Especially interesting is that spectacular procession of Ptolemy Philadelphus (Athen. V, 199 A) in which there was a wagon on which was an enormous vat full of grapes, which sixty satyrs under the presidency of Silenus trampled, singing a song in praise of the wine press to the music of the pipes, while the new wine poured out over the whole road.

<sup>5</sup> The foot castanets were called *κρουπέσαι*, since the top clapper might be constructed as a sort of shoe in which the piper placed his foot in order to work it. See Photius *s.v.*; Pollux VII, 87; X, 153; Schol. on Aeschylus in Meineke, *Fragm. Com. Gr.* I, p. 336. The suggestion in Harper's *Latin Dictionary* that *scrupeda* or *scrupipeda* is this word in Latin disguise is perhaps correct, although the etymologists have wrestled with it dubiously (e.g. Walde, *Etym. Wörterb. s.v.*). In this connection compare especially Hesychius, *s.v.* *κρουπέζουμένος*.

<sup>6</sup> Reinach, *op. cit.* III, p. 73, fig. 1; Ruesch, *op. cit.* No. 1842.

We have now seen that in certain treading operations fullers and manufacturers of olive oil and of wine required a support in order to maintain their equilibrium. Among other means of balancing themselves, a pair might resort to the use of a ring of some sort. Bronze specimens of these seem to be intended by the term *orbis aheneus*, an implement until now unidentified in the equipment which Cato mentions as necessary to the olive presser and grape presser. According to our theory of identification such rings have been found in various places and in especially large number in the famous olive growing regions of Italy. Originals or models might naturally be carried in a Dionysiac procession and dedicated as votive or thank offerings for a successful harvest to the proper deity.

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